

Notice of Allowability

Application No.

10/826,264

Examiner

Thoi V. Duong

Applicant(s)

CHUNG ET AL.

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed September 14, 2006.
2. ☒ The allowed claim(s) ~~is~~ are 1, 2, 4-17, 19, 21-24, 26 and 28-39.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This office action is in response to the Amendment filed September 14, 2006.

Accordingly, claims 1, 4, 15, 19, 26, 28, 29, 31 and 33 were amended, claims 3, 18, 20, 25 and 27 were cancelled, and new claims 35-39 were added. Currently, claims 1, 2, 4-17, 19, 21-24, 26 and 28-39 are pending in this application.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James T. Eller, Jr. (Reg. No. 39, 538) on 11/17/2006.

In the title: change the title as "Liquid crystal display device and method of manufacturing the same comprising a plurality of seal patterns between a plurality of supporting patterns and a plurality of compensating patterns disposed below and aligned with the plurality of supporting patterns."

In the claims:

Claim 33: in line 1, after "according to claim", delete "20" and insert --15--.

Allowable Subject Matter

3. Claims 1, 2, 4-17, 19, 21-24, 26 and 28-39 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

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Re claims 1 and 15, none of the prior art of record discloses, in combination with other limitations as claimed, a liquid crystal display device as well as a method of manufacturing the same, comprising:

- a first substrate having a first region and a second region, wherein the second region surrounds the first region;

- a plurality of patterned spacers over the first substrate in the first region;

- a plurality of supporting patterns spaced apart from each other over the first substrate in the second region;

- a plurality of compensating patterns disposed below and aligned with the plurality of supporting patterns; and

- a plurality of seal patterns between the plurality of supporting patterns in the second region.

The most relevant references, US 6,414,733 B1 to Ishikawa et al. (Ishikawa) and US 6,705,584 to Hiroshima et al. (Hiroshima), fail to disclose or suggest a plurality of seal patterns between the plurality of supporting patterns in the second region.

At first, as shown in Figs. 5 and 6E, Ishikawa discloses a first substrate 11 having a first region A and a second region B, wherein the second region B surrounds the first region; a plurality of patterned spacers 18 over the first substrate 11 in the first region A; a plurality of supporting patterns 14 spaced apart from each other over the first substrate 11 in the second region B; and a plurality of compensating pattern 13R' disposed below and aligned with the plurality of supporting patterns 14. However,

Ishikawa only discloses a seal pattern disposed outside the plurality of supporting patterns 14 in the second region B.

Further, as shown in Fig. 1, Hiroshima discloses a first substrate SUB2 having a display region and a non-display region, wherein the non-display region surrounds the first region; a plurality of patterned spacers SP1 over the first substrate SUB2 in the display region; a plurality of supporting patterns SP2, SP3 spaced apart from each other over the first substrate in the second region; and a seal pattern SL between the plurality of supporting patterns SP2, SP3 in the non-display region. However, Hiroshima does not suggest a plurality of seal patterns between the plurality of supporting patterns as well as a plurality of compensating patterns disposed below and aligned with the plurality of supporting patterns.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

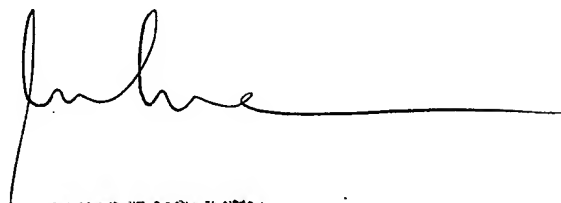
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms, can be reached at (571) 272-1787.

Thoi Duong



11/17/2006



DUNG T. NGUYEN
PRIMARY EXAMINER